



Domeless solar telescope on Capri

330-mm diameter. A rotating diaphragm in front of the mirror allows small regions of the sun to be isolated. Spectroscopy will be done with a grating autocollimation spectrograph of 20-meter focal length and 200-mm diameter, which provides enough resolving power to observe distribution of magnetic field strength across the solar surface. A special color filter on the instrument will permit more detailed study of hydrogen explosions on the sun's surface and in the corona.

You can reach Capri from Naples by vaporetto, hydrofoil, or helicopter and from Sorrento by vaporetto or water taxi.

Orbiting geophysical observatory

In spite of early difficulties with the vehicle, nineteen of the twenty experiments aboard NASA's second orbiting geophysical observatory (OGO II) were reported functioning in early November. The satellite was launched on Oct. 14 from Vandenberg Air Force Base in California and moves in a very eccentric orbit inclined at 86° to the equator. OGO II is the second of a series of seven geophysical satellites to be put into a polar orbit. When the series is complete, four vehicles will be in eccentric orbits, and three will fly near the earth.

Trouble was caused by the horizon sensor, which strayed from its fix.

In correcting this, the attitude control gases were exhausted, leaving the vehicle with a slight tumbling motion that had not been planned for. This circumstance complicates data reduction but does not preclude useful results. The power supply also ran low, and contact with the satellite was intermittent at first. The power is expected to build up again, however.

Experiments aboard OGO II were supplied by eleven United States universities, one foreign university (Paris), two NASA field centers, and two other government agencies. The investigations seek information on various aspects of the following topics: mapping of the geomagnetic field with particular reference to anomalies and fluctuations induced by solar action; solar ultraviolet and x-ray emissions during low solar activity; dumping of trapped radiation and influx of solar particles into auroral regions; physics and chemistry of the neutral atmosphere; atmospheric and airglow effects of solar uv and x-ray emissions; micrometeorites near the earth; particles trapped in the geomagnetic field; very-low-frequency radio noise; solar wind interactions with magnetic fields; cosmic rays; and radio noise in space and identification of planetary and solar noise bursts.

A place to stand for Mohole

National Steel and Shipbuilding Company of San Diego has won the \$30-million contract for the Project Mohole drilling platform. (Selection was made by the National Science Foundation.) Construction is scheduled to begin early next year, and it is possible that the first drillings at the primary site north of the Hawaiian Island of Maui will begin in 1968.

New building for Trieste Centre

Construction has begun on a permanent building for the International Atomic Energy Agency International Centre for Theoretical Physics. Located at Miramare, near Trieste, the new headquarters will be owned by the University of Trieste and will replace the premises on Piazza Oberdan in the center of the city that

have served the centre since its inception in October 1964. To inaugurate its first year of operation, the centre held a four-week general seminar on plasma physics that attracted 21 lecturers and 64 participants. On its anniversary in October this year, a year-long study of plasma physics began, led by leaders in the field from the United States and Russia.

Comets and rockets

The recent comet Ikeya-Seki gave the first opportunity for observation of the passage of a bright sun-grazing comet with sounding rockets and high-flying aircraft. (Such comets occur once or twice a century.) The operation was a success, but the patient didn't have the disease.

When the comet was discovered, the National Aeronautics and Space Administration set up a program including two Aerobee rockets from Wallops Island and two from White Sands, visual observations from the scheduled Gemini 6 flight, the Convair 990 aircraft flying over the Pacific north of Hawaii, and ground observations. The comet was discovered on Sept. 18, but its orbit was not computed until Oct. 4. The NASA program was set to operate by Oct. 20.

Except for the Gemini 6 flight, which didn't go, everything worked as planned. The rockets got good pictures, including some high-altitude shots of the solar corona (one of the expected side-benefits). The aircraft and ground observations also were successful. Satellite tracking stations were brought into the act, and the ground communication links functioned smoothly. The comet, unfortunately, was not of the type expected, and the information was less than what was hoped for.

The program was predicated on the belief that the comet possessed a molecular tail. The rockets were set to get ultraviolet spectra and the airplane to get infrared. The comet turned out to have a tail made of dust, which rendered spectroscopy superfluous. (When this became known, the firing of the fourth rocket was cancelled.) However, when a comet with a molecular tail does come along...